

CLAIMS

1. A cold spray apparatus comprising:
 - a gas controller for controlling gas supply amount of main gas and residual gas
 - 5 (gas that is not supplied as the main gas);
 - a gas heater for heating the main gas supplied under the control of the gas controller;
 - a powder feeder for receiving the residual gas under the control of the gas controller and supplying a coating powder together with the residual gas;
 - 10 a powder preheating device for preheating the coating powder supplied from the powder feeder;
 - a mixing chamber for mixing the heated main gas with the preheated coating powder;
 - a temperature controller for adjusting temperature by controlling the powder
 - 15 preheating device and the gas heater; and
 - a nozzle for spraying the coating powder mixed in the mixing chamber.
2. The cold spray apparatus of claim 1, wherein the powder preheating device includes:
 - 20 a housing;
 - a heater mounted on the housing to perform resistance heating; and
 - a powder transfer pipe formed within the housing in a screw shape in order for fluid communication between the powder feeder and the mixing chamber, the powder transfer pipe transferring the coating powder.
- 25 3. The cold spray apparatus of claim 1, wherein the powder transfer pipe is made of stainless steel.